## AMENDMENT TO THE CLAIMS

Kindly cancel claims 4, 9, and 15. Kindly amend claims 1, 5, 6, 10, 11, and 12 to read as follows.

- 1. (Currently Amended) A method of <u>determining the prognosis</u> [of creating a prognosis protocol] for a patient diagnosed with <u>Alzheimer's disease (AD)</u>, neurofibromatosis,

  Huntington's disease, depression, amyotrophic lateral sclerosis, multiple sclerosis, stroke,

  Parkinson's disease, multiple infarcts dementia, a prion disease, a pathology of the developing

  nervous system, a pathology of the aging nervous system, an infection of the nervous system, a

  dietary deficiency, or a cardiovascular injury [a neurological disease], said method comprising,
  - a) identifying a patient already diagnosed with said disease;
- b) determining the *apoE* allele load of said patient by genotyping or phenotyping, said phenotyping including characterizing ApoE protein isoform [; and
- c) converting the data obtained from step b) into a prognosis protocol], wherein the presence of at least one *apoE4* allele or at least one ApoE4 protein isoform is indicative of a poor patient outcome [or decreased efficacy of a therapeutic].
  - 2. (Cancelled)
- 3. (Previously Amended) The method of claim 1, wherein said method further comprises obtaining a patient profile.
  - 4. (Cancelled)

- 5. (Currently Amended) The method of claim 1 [4], wherein said prion disease is Creutzfeldt-Jakob disease.
- 6. (Currently Amended) The method of claim 1 [4], wherein said dietary deficiency is a congenital defect in amino acid metabolism.
- 7. (Original) The method of claim 6, wherein the defect is selected for the group consisting of arginosuccinic aciduria, cystathionuria, histidinaemia, homocystinuria, hyperammonaemia, phenylketonuria, and tyrosinanaemia.
- 8. (Previously Amended) The method of claim 1, wherein said patient is diagnosed with fragile X syndrome.



- 9. (Cancelled)
- 10. (Currently Amended) The method of claim  $\underline{1}$  [9], wherein said disease is Alzheimer's disease.
- 11. (Currently Amended) The method of claim 3, wherein said <u>method further</u> comprises [patient profile includes] a determination of said patient's sex.
- 12. (Currently Amended) The method of claim 3, wherein said method further comprises a determination of [patient profile includes] the genotype of said patient.

- 13. (Original) The method of claim 12, wherein said genotype is the presentlin genotype.
- 14. (Original) The method of claim 12, wherein said genotype is the apolipoprotein C1 genotype.
  - 15. (Cancelled)
  - 16. (Cancelled)

17-20 (Withdrawn)